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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/803,560	03/09/2001	Akira Tsubouchi	18733/00040	7306

24731 7590 11/08/2002

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EXAMINER

ECHOLS, PERCY W

ART UNIT	PAPER NUMBER
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3726

DATE MAILED: 11/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/803,560

Applicant(s)

TSUBOUCHI ET AL.

Examiner

P. W. Echols

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 July 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 5-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All   b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2, 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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1. Applicant's election with traverse of Group I, claims 1 and 3 in Paper No. 6 is acknowledged. The traversal is on the ground(s) that there is no serious burden on the examiner in view of each group of claims being classified in the same subclass. This is not found persuasive because the search for Groups III-V would involve search in other subclasses that involve deformation of the teeth and for rounding ends of the rack. These features are not found in Groups I and II. Further, the search for Groups III-V does not require search for techniques to compensate for springback.

Group II will be examined with Group I since it appears to require the same search.

Group V includes claims 12-14.

The requirement is still deemed proper and is therefore made FINAL.

2. The specification should be reviewed and revised for clarity. Numerous instances of vague language was found throughout the specification, for example see the first and second full paragraphs on page 7.

3. Claims 1-4 are objected to because of the following informalities: In claims 1-4, line 6, "portion" should be --portions--; and in line 8, "wall" should be --walls--.

Appropriate correction is required.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 2 and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 2 and 4, the third line from the end of each claim, the use of "previously " is confusing and/or not understood.

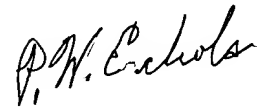
6. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art set forth on pages 1-9 of the specification in view of Mader (4,424,727). The prior art teaches the claimed limitations except for providing compensation for spring back by "over bending" the work element when it is in the die and forming a die to perform the "over bending". Mader teaches that it was known to compensate for "spring back" by modifying a die to "over bend " the material to compensate for "spring back". It would have been obvious to modify the process and dies of the prior art to compensate for "spring back" by forming the die to "over bend" the material in view of Mader's teaching that the process and dies were known. Deforming in the longitudinal direction is considered to have been an obvious matter of article design. Providing for "spring back" when forming the rack teeth is considered to have been an obvious matter of manufacturing expediency in the absence of disclosure of the process or dies causing new or unexpected results.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to P. W. Echols whose telephone number is 703-308-1802. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Hughes can be reached on 703-308-1806. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3579 for regular communications and 703-305-3579 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1802.



pwe  
November 4, 2002

**P. W. Echols**  
**Primary Examiner**